

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

A NEW SPECIES OF *CINARA* FROM WASHINGTON
(APHIDAE)

By F. C. HOTTES

I am indebted to Prof. E. O. Essig for sending me the material from which this new species is described.

Cinara hirticula n. sp.

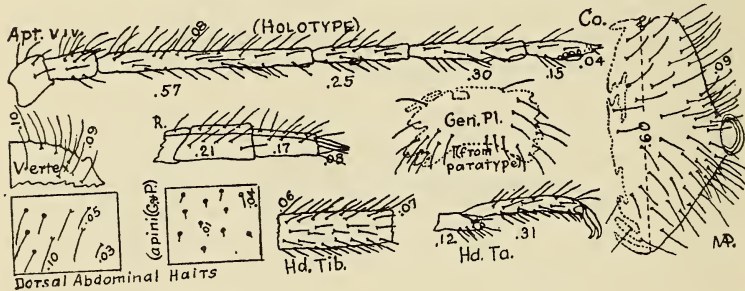
Apterous viviparous female.

Length from vertex to end of cauda varying from 3.65-3.80mm. Color notes taken from living specimens not available, as represented by cleared mounted specimens as follows: head and thorax dark dusky, in life most likely black. Cornicles two toned with the darker area adjacent to the orifice, both areas dusky black. Dorsum of abdomen posterior to cornicles with or without irregularly shaped pigmented spots of varying size. First antennal segment concolorous with head, second antennal segment slightly lighter than the first. Third, fourth and fifth antennal segments pale dusky with the extreme apical regions darker, the darker area of the fifth segment being the most extensive. Sixth antennal segment almost uniform dark dusky. Femora with basal areas pale, shading to dark dusky, with the anterior margin and apex much the darkest, the pale area most extensive on the metathoracic femora. All tibiae with a very short area near the base black, prothoracic and mesothoracic tibiae with dusky following the black at the base, and this followed by dark dusky at the apex. Metathoracic tibiae with basal area followed by pale dusky to middle of segment, from here shading quickly to dark dusky black. Second segment of rostrum with pale dusky spots, remaining segments of the rostrum dark brown.

Head and thorax.—Length of antennal segments as follows: III .52-.57mm., IV .22-.25mm., V .21-.30mm., VI .15 + .04mm. Sensoria distributed as follows: III with only primary sensorium, IV, O-I secondary plus primary, V, I secondary plus primary. Hair on antennae numerous, on third segment more abundant and longer on anterior margin, set at angle of about sixty degrees, about .08mm. long. Sixth antennal segment weakly imbricated. Rostrum reaching orifice of cornicle. Last three segments of the rostrum with the following lengths: .21, .17, .08mm. Ocular tubercles small but very protuberant. Median transverse suture of head narrow but very distinct. Hairs on dorsum of head numerous, about .10mm. in length. Mesosternal tubercle present with the width greater than the length. Length of prothoracic femora

and tibiae varying as follows: .97-1.08mm., 1.35-1.38mm. Length of metathoracic femora and tibiae varying as follows: 1.50-1.72mm., 2.40-2.77mm. Hairs on metathoracic femora numerous, more numerous towards apex, and along anterior margin, where the hairs are also longest. Hairs on metathoracic tibiae numerous, more numerous on outer margin than on inner margin, also more numerous towards the apex of segment. The hairs are spaced closer together than their length, set at an angle of about forty-five degrees, the apical half of each hair is finer than the basal half. On the outer margin the hairs vary from .06-.07mm. in length, being slightly shorter than the width of segment, the ratio of length to width being .06-.07 to .09mm. The segments of the metatarsus measure .12 and .03-.31mm. The ventral surface of the first metatarsal segment has about fourteen hairs, on this surface the two apical hairs arise at an angle to each other and are shorter and thicker than the others. The hairs on the ventral surface of the second metatarsal segment are more numerous and shorter than the hairs on the dorsal surface.

Abdomen.—Width of base of cornicles varying from .60-.67mm. The



Cnara hirticula n.sp.

outer margin of the cornicles is very irregular, the posterior margin is associated with a few small free pigmented spots. The darker more constricted region of the cornicles has more hairs than the outer area. The hairs on the cornicles are about .09mm. in length. The dorsum of the abdomen has fairly numerous long fine hairs which vary in length from .09-.13mm. for the most part, but there are a few hairs as short as .05mm. These hairs are closer together than their length. Hairs on the ventral surface of the abdomen much more numerous than the hairs on the dorsal surface but of about the same length. Dorsum of the abdomen very finely reticulated. Ventral surface of the abdomen with transverse rows of setulae, similar rows of setulae are present on the dorsum on the larger pigmented areas, when such are present. Transverse pigmented spots anterior to the cauda wide, more or less joined on their inner margins by teeth, or free. Posterior portion of these spots with about three rows of long stiff hairs. Genital plate varying much in size, with the lateral portions toothed, the hairs few and confined largely to the ends and posterior margin. Cauda and anal plate with black coarse setulae. Hairs on cauda few, these and the hairs on the anal plate are about .15mm. in length.

This species is perhaps most closely allied to *C. apini* G. & P. It was so determined when sent to me. It differs from *apini* by the much longer coarser hairs on the dorsum of the abdomen, by longer tibial hairs, shorter and wider mesosternal tubercle, and by the distribution of hairs on the cornicles. In Paumer's key to the genus *Cinara* in, Aphids of the Rocky Mountain Region, this species keys to *C. apini* without difficulty. Strangely enough cleared specimens of *apini* do not key to *apini* in Palmer's key because of the short hairs on the dorsum of the abdomen, this fact not being known when the key was constructed, because the original material was not cleared. *C. apini* keys to the same section as *C. atra*, and differs in the longer antennae, larger cornicles, and shorter hairs on the ventral surface of the first metatarsal segment, as well as longer hairs on the antennae and tibiae. From *C. hirsuta* H. & E. this species differs in having much shorter body, femoral and tibial hairs, as well as shorter antennae. From *C. moketa* H. described from the same host, this species differs in the much longer antennal segments, much shorter tibial hairs, and the shorter hairs on the cornicles.

Holotype apterous viviparous female, returned to the collection of prof. E. O. Essig. Taken on *Pinus lambertiana*, Seattle, Washington June 21, 1955. Collected by M. J. Forsell.